

b5-⁵⁸⁷ part and a second vocal information part in the second language.--

REMARKS

Claims 1-12 and 24-30 remain in the application and claims 1, 11, and 24 have been amended hereby to correct formal matters only.

The Abstract of the Disclosure has been amended in accordance with M.P.E.P. § 608.01(b) as required by the Office Action in paragraph 2. Applicant respectfully requests reconsideration of the objection to the Abstract of the Disclosure.

The drawings have been amended in accordance with 37 C.F.R. § 1.83(a) in a Letter With Proposed Drawing Changes submitted herewith, as required by the Office Action in paragraph 3. Applicant respectfully requests reconsideration of the objection to the drawings under 37 C.F.R. § 1.83(a).

The claims have been carefully reviewed and amended with particular attention to the points raised in the Office Action. By the present Amendment, independent claims 1 and 24 have been amended to simply clarify the claim language. It is submitted that no new matter has been added and no new issues have been raised by the present Amendment.

Reconsideration is respectfully requested of the rejection of claims 1-12 and 24-30 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The instances noted by the Office Action have been corrected in the amendments made to the claims hereby.

One non-limiting example to support the amendment of the claims with regard to the input information for the separation unit may be found in the specification on page 23, lines 7-8 and D1 in Fig. 4.

One non-limiting example of "separating a first vocal information part in a first language and an accompaniment information part from input vocal-containing musical number information" is found on page 23, lines 6-10 and 17-21. Applicant respectfully submits that the detailed manner of separating information from the input information need not be recited in the claims.

Applicant further respectfully submits that the vocal information part is audio data composed only of the vocal part of the input musical number information (page 23, lines 17-21) and the accompaniment information part is information other than the vocal part, also known as karaoke information (page 16, lines 10-11 and page 23, lines 8-9). The language lyric information is shown in Fig. 5 and is derived from the vocal information part (page 24, line 21 to page 28, line 8).

Withdrawal of the rejection under Section 112, second paragraph, is respectfully requested.

Reconsideration is respectfully requested of the rejection of claims 1-12 and 24-30 under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art

to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 1 and 24 have been amended in accordance with the description in the specification and the structure shown in the drawings. The instances noted by the Office Action have also been corrected in the amendments made to the specification hereby.

Applicant respectfully submits that "the required information" on page 6, the transmission method on page 8, and "the intermediate transmission devices 2" on page 9 relate to an information distribution system that may have a number of implementations that include the information processing apparatus as claimed, and the system is capable of processing the input vocal-containing musical information.

Applicant respectfully submits that any protocol capable of transmitting data containing input vocal-containing musical number information could be used with the invention as claimed.

Applicant merely mentions TWINVQ as an example of a variety of compression techniques that may be used, and respectfully submits there is no particular limitation on the compression method (page 14, line 7-8).

Applicant respectfully submits the specification includes non-limiting explanations for separating desired audio (page 23, line 1 to page 24, line 6), speech recognition and translation (page 24, line 7 to page 29, line 1), and speech synthesis (page 29, line 2 to page 31, line 4).

Withdrawal of the rejection under Section 112, first

paragraph, is respectfully requested.

Reconsideration is respectfully requested of the rejection of claims 1-12 and 24-30 under 35 U.S.C. § 103(a), as being unpatentable over U.S. Patent No. 5,613,909 to Stelovsky in view of U.S. Patent No. 4,852,170 to Bordeaux and U.S. Patent No. 5,546,500 to Lyberg.

Applicant has carefully considered the Examiner's comments and the cited references, and respectfully submits that amended independent claims 1 and 24 are patentable over the cited references for at least the following reasons.

This invention is intended to improve an information processing apparatus comprising a separation unit for separating a first vocal information part in a first language and an accompaniment information part from input first vocal-containing musical number information, a processing unit for generating first language lyric information by speech recognition of the first vocal information part separated by the separation unit, for translating the generated first language lyric information into second language lyric information of a second language different from the first language, and for supplying the second language lyric information, and a synthesis unit for synthesizing the second language lyric information supplied from the processing unit, the accompaniment information part, and the first vocal information part separated by the separation unit to generate second vocal-containing musical number information, wherein the second vocal-containing musical number information includes the accompaniment information part and a second vocal

information part in the second language.

Claims 1 and 24 have been amended hereby to emphasize the features of the claimed invention described above.

Stelovsky, as understood by Applicant, relates to a multimedia game playing system comprising a multimedia presentation comprised of a plurality of recorded media tracks with at least a video track that is time-segmented.

The Office Action notes that Stelovsky does not disclose speech recognition to perform translation and, for that reason, Bordeaux and Lyberg are cited to show speech recognition to perform translation.

Bordeaux, as understood by Applicant, relates to a real time speech recognition system.

Lyberg, as understood by Applicant, relates to an arrangement for increasing comprehension of speech when translating speech from a first language to a second language.

The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art itself suggested the desirability of the modification. See In re Fritch, 972 F.2d 1260, 1266, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992). The motivation to modify cannot come from the present invention. See Heidelberger Drucksmaschinen AG v. Hantscho Commercial Products, 21 F.3d 1068, 1072, 30 U.S.P.Q.2d 1377, 1380 (Fed. Cir. 1994).

It has been held that "[a] rejection based on section 103 clearly must rest on a factual basis, and these facts must be interpreted without hindsight reconstruction of the invention

from the prior art . . . The Patent Office has the initial duty of supplying the factual basis for its rejection. It may not, because it may doubt that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in its factual basis." In re Warner and Warner, 379 F.2d 1011, 1017, 154 U.S.P.Q. 173, 178 (CCPA 1967).

The Office Action maintains Stelovsky teaches separating a first vocal information part in a first language and an accompaniment information part from first vocal containing musical information, generating first language lyric information, translating the generated first language letter information into the second language letter information, and synthesizing the second language lyric information.

Applicant does not maintain he merely invented separating a first vocal information part in a first language and an accompaniment information part from first vocal containing musical information, generating first language lyric information, translating the generated first language letter information into the second language letter information, and synthesizing the second language lyric information. It is the use of separating a first vocal information part in a first language and an accompaniment information part from input first vocal-containing musical number information, generating first language lyric information by speech recognition of the first vocal information part separated by the separation unit, for translating the generated first language lyric information into second language lyric information of a second language different from the first

language, and for supplying the second language lyric information, and synthesizing the second language lyric information supplied from the processing unit, the accompaniment information part, and the first vocal information part separated by the separation unit to generate second vocal-containing musical number information, wherein the second vocal-containing musical number information includes the accompaniment information part and a second vocal information part in the second language that forms the important features of this invention, as set forth in amended independent claims 1 and 24.

Applicant respectfully submits that, even combining Stelovsky with Bordeaux and Lyberg, the subject matter of amended independent claims 1 and 24 are not disclosed. Stelovsky provides no suggestion of any benefits to be had by separating a first vocal information part in a first language and an accompaniment information part from input first vocal-containing musical number information, and generating first language lyric information by speech recognition of the separated first vocal information part. On the contrary, Stelovsky appears to show use of pre-recorded video and music audio tracks synchronized with a text display of lyrics, allowing the user to create a new vocal track in real time by singing into a microphone (col. 1, lines 15-18).

Stelovsky also provides no suggestion of any benefits to be had by translating the first language lyric information (generated by speech recognition) into second language lyric information of a second language different from the first

language. On the contrary, Stelovsky appears to teach a textual track can be generated using a direct translation into another language without speech recognition.

Stelovsky lastly provides no suggestion of any benefits to be had by synthesizing the second language lyric information, the separated accompaniment information part, and the separated first vocal information part to generate second vocal-containing musical number information, wherein the second vocal-containing musical number information includes the accompaniment information part and a second vocal information part in the second language. On the contrary, Stelovsky appears to teach an audio track can be generated using a speech generator, rather than recorded.

In other words, the important point of the present application is that the information processing apparatus separates music information comprising first language vocal information and accompaniment information and extracts only the first language vocal information, performs speech recognition of the thus extracted first language vocal information to generate first language letter information, converts the first language letter information into second language letter information by a translation processing unit, converts the second language letter information into second language vocal information by a vocal processing unit, and synthesizes the thus generated second language vocal information and the accompaniment information, which is not taught or suggested by combination of the cited references.

Accordingly, for the above-stated reasons, it is

respectfully submitted that amended independent claims 1 and 24 are patentable over the cited references.

Claims 2-12 and 25-30 depend from claims 1 and 24 which for the reasons set forth hereinabove are thought to be patentably distinct over the cited references and, for at least those very same reasons, claims 2-12 and 24-30 are also submitted to be patentably distinct thereover.

Entry of this amendment is earnestly solicited, and it is respectfully submitted that this amendment raises no new issues requiring further consideration and/or search, because the functional aspects of the invention have merely been clarified in the amended claims.

The Office is hereby authorized to charge any additional fees which may be required in connection with this Amendment and to credit any overpayment to our Deposit Account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Favorable reconsideration is earnestly solicited.

Respectfully submitted,

COOPER & DUNHAM LLP



Jay H. Maioli
Reg. No. 27,213

JHM/SL

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION

The paragraph beginning on page 14, line 3 has been amended as follows:

Since the storage unit 102 is in need of storing a large quantity of data, it is preferably in a compressed state. For compression, a variety of techniques, such as MDCT (Modified Discrete Cosine Transform), [TwinVQ] TWINVQ (Transform Domain Weighted Interleave Vector Quantization) (Trademark), as disclosed in Japanese Laying-Open Patent H-3-139923 or 3-139922. There is, however, no particular limitation if the compression method permits data expansion in, for example, the intermediate transmission device 2.

The paragraph beginning on page 14, line 10 has been amended as follows:

The portable terminal device 3 sends its terminal ID data with request information to the server device 1 when first connected to the intermediate transmission device 2. A collation processing unit 104 collates the terminal ID data of the portable terminal device 3 [sent along] with [the request information to] the terminal ID data of the portable terminal [device that is] devices currently able to use the information distribution system [(]. A pre-existing subscription list of authorized portable terminal devices (for example those that have paid a use fee) is stored as user-related data in the storage unit 102[() to send].

The collation processing unit 104 sends the results of collation to the controller 101. Based on the results of collation, the controller then decides whether the information distribution system is or is not permitted to be used by the portable terminal device 3 loaded on the intermediate transmission device 2 [as the destination of transmission of the request information].

The paragraph beginning on page 14, line 18 has been amended as follows:

Under control by the controller 101, the assessment processing unit 105 performs [the processing of] assessment [of] processing to determine the use fee amount needed to meet the state of use of the information distribution system by the user in possession of the portable terminal device. If, for example, the request information for information copying or electrical charging is sent from the intermediate transmission device 2 over the communication network 4 to the server device 1, the controller 101 sends the information coincident with the request information or data for permission of electrical charging. Based on the transmitted request information, the controller 101 grasps the state of use in the intermediate transmission device 2 or in the portable terminal device 3, and controls the assessment processing unit 105 so that the use fee amount of [assessment in meeting] needed to meet with the actual state of use will be set in accordance with [the] a pre-set rule.

IN THE ABSTRACT OF THE DISCLOSURE

The Abstract has been amended as follows:

[A music] An information processing apparatus for [receiving first] separating input vocal-containing musical number information [and separating] into a vocal information part in a first language and an accompaniment information part, and for producing second vocal-containing musical number information made of the original accompaniment part having a translated vocal information part superimposed thereon.

IN THE CLAIMS

Claims 1, 11, and 24 have been amended hereby to correct formal matters only as follows.

1. (Twice Amended) An information processing apparatus comprising:

a separation unit for separating a first vocal information part in a first language and an accompaniment information part from input first vocal-containing musical number information;

a processing unit for generating first language lyric information by speech recognition of the first vocal information part separated by said separation unit, for translating the generated first language lyric information into second language lyric information of a second language different from the first language, and for supplying the second language lyric information; and

a synthesis unit for synthesizing the second language lyric information supplied from the processing unit, [and] the accompaniment information part, and the first vocal information part separated by said separation unit to generate second vocal-containing musical number information, wherein the second vocal-containing musical number information includes the accompaniment information part and a second vocal information part in the second language.

11. (Twice Amended) The information processing apparatus according to claim 1, further comprising a storage unit for storing the accompaniment information separated by said separation unit, the first language lyric information, the second language lyric information, and the second vocal-containing musical information generated by said synthesis unit.

24. (Twice Amended) An information processing method comprising:

separating a first vocal information part in a first language and an accompaniment information part from input first vocal-containing musical number information;

generating first language lyric information by speech recognition of the separated first vocal information part;

converting the generated first language lyric information into second language lyric information of a second language different from the first language; and

synthesizing the second language lyric information, the

separated accompaniment information part, and the separated first vocal information part to generate second vocal_ containing musical number information, wherein the second vocal_ containing musical number information includes the accompaniment information part and a second vocal information part in the second language.